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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

Office Action Summary

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

- Claims 1-35 remain pending.

Claim Objections

1.   Claim 3 is objected to because of the following informalities:

- In claim 3 line 2, "thus" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claim 1, 11, 22

The limitation "the acknowledgment information controlling transmission of additional data from the transmitter to the receiver based on the varied transmitting window size" is unclear and renders the claim indefinite. The wording of the limitation is confusing. What is based on the varied transmitting window size? Is it the "acknowledgement information" or the "additional data"?

- In reference to claim 11

In lines 4-5, the limitation "based on a processing speed of data stored in a receiving buffer" renders the claim indefinite because a data stored in a buffer does not have a processing speed. For the purpose of examination, the Examiner assumes that the limitation should read --based on a speed that data stored in a receiving buffer is processed--.

- In reference to claim 33

Claim 33 recites the limitation "the transmitted" in line 3. There is insufficient antecedent basis for this limitation in the claim.

The dependent claims are rejected because they depend from rejected independent claims.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-35, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over ETSI TS 125 322 version 5.1.0 (2002-06) in view of Le et al. (US 6744730)

- In reference to claim 1

In Figure 4.4 and 9.10, ETSI TS 125 322 teaches a data transfer controlling method in a radio system which transmits and receives data in an acknowledgement mode that includes transmitting window size control information (pg. 33 9.2.2.11.3) from a receiver to a transmitter and varying a transmitting window size by the transmitter according to the transmitted window size control information wherein acknowledgement information (pg. 32 9.2.2.11.2) is transmitted simultaneously with the window size control information, the acknowledgement information controlling transmission of additional data from the transmitter to the receiver based on the varied transmitting window (pg. 15 4.2.1.3.1.; 4.2.1.3.2)

ETSI TS 125 322 does not explicitly teach transmitting window size control information from a receiver to a transmitter by a state of a receiving buffer.

In Figure 1, Le et al. teaches transmitting window size control information from a receiving host (18) to a sending host (10) based on a state of a receiving buffer. The receiving host (18) instructs the sending host (10) to increase the window size when the receiving buffer is near empty and instructs the sending host (10) to decrease the window size when the receiving buffer is near full. (column 2 lines 23-41)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the data unit containing the acknowledgement information of ETSI TS 125 322 to include transmitting window size control information from a receiver to a transmitter by a state of a receiving buffer as suggested by Le et al. because it allows the window size data transmission rate to be varied in order to prevent buffer overflow or under utilization of network resources.

- In reference to claim 2

In Figure 4.4, ETSI TS 125 322 further teaches the transmitter is a network and the receiver is a terminal. (pg. 15 4.2.1.3.1.; 4.2.1.3.2)

- In reference to claim 3, 14, 27

In Figure 9.10, ETSI TS 125 322 further teaches the window size control information is contained in status information to be transmitted. (pg. 33 9.2.2.11.3)

- In reference to claim 4, 26

In Figure 9.10, ETSI TS 125 322 further teaches the window size control information is a window size super-field (SUFI). (pg. 33 9.2.2.11.3)

- In reference to claim 5 16, 28-29

In Figure 9.10, ETSI TS 125 322 further teaches the status information further includes an ACK SUFI. (pg 31 9.2.2.11)

- In reference to claim 6, 13, 23

In Figure 9.10, ETSI TS 125 322 further teaches the receiver adjusts a receiving window size to be the same as the transmitting window size. (pg. 33 9.2.2.11.3)

- In reference to claim 7, 8, 17-19, 24-25

ETSI TS 125 322 teaches a system and method that covers substantially all limitations of the parent claim.

ETSI TS 125 322 does not teach the window size control information includes window size downward setting information if a receiving buffer is in an overflow state.

In Figure 1, Le et al. teaches transmitting window size control information from a receiving host (18) to a sending host (10) based on a state of a receiving buffer. The receiving host (18) instructs the sending host (10) to increase the window size when the receiving buffer is near empty and instructs the sending host (10) to decrease the window size when the receiving buffer is near full. (column 2 lines 23-41)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the window size control information of ETSI TS 125 322 to include window size downward setting information if a receiving buffer is in an overflow state as suggested by Le et al. because it allows the window size to be varied in order to prevent buffer overflow.

- In reference to claim 9, 10, 20-21, 30-31

ETSI TS 125 322 teaches a system and method that covers substantially all limitations of the parent claim.

ETSI TS 125 322 does not teach the window size control information includes window size upward setting information if a receiving buffer is not in an overflow state.

In Figure 1, Le et al. teaches transmitting window size control information from a receiving host (18) to a sending host (10) based on a state of a receiving buffer. The

receiving host (18) instructs the sending host (10) to increase the window size when the

receiving buffer is near empty and instructs the sending host (10) to decrease the

window size when the receiving buffer is near full. (column 2 lines 23-41)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the window size control information of ETSI TS 125 322 to

include window size upward setting information if a receiving buffer is not in an overflow

state as suggested by Le et al. because it allows the window size to be varied in order

to prevent utilization of network resources.

- In reference to claim 11

In Figure 4.4 and 9.10, ETSI TS 125 322 teaches a data transfer controlling

method in a radio system which controls a flow of a radio link and includes an entity

operated in an acknowledgement mode, wherein window size update information (pg.

33 9.2.2.11.3) is transmitted from a receiving entity to a transmitting entity wherein

acknowledgement information (pg. 32 9.2.2.11.2) is transmitted simultaneously with the

window size control information, the acknowledgement information controlling

transmission of additional data from the transmitter to the receiver based on the varied

transmitting window (pg. 15 4.2.1.3.1.; 4.2.1.3.2)

ETSI TS 125 322 does not teach transmitting window size control information

from a receiver to a transmitter by a state or processing speed of a receiving buffer.

In Figure 1, Le et al. teaches transmitting window size control information from a

receiving host (18) to a sending host (10) based on a state of a receiving buffer. The

receiving host (18) instructs the sending host (10) to increase the window size when the

receiving buffer is near empty and instructs the sending host (10) to decrease the

window size when the receiving buffer is near full. (column 2 lines 23-41)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the data unit containing the acknowledgement information of

ETSI TS 125 322 to include transmitting window size control information from a receiver

to a transmitter by a state of a receiving buffer as suggested by Le et al. because it

allows the window size data transmission rate to be varied in order to prevent buffer

overflow or under utilization of network resources.

- In reference to claim 12

In Figure 4.4, ETSI TS 125 322 further teaches the entity is a radio link control

(RLC). (pg. 15 4.2.1.3.1.; 4.2.1.3.2;

- In reference to claim 15

In Figure 9.10, ETSI TS 125 322 further teaches the window size update

information is included in a window size super-field (SUFI). (pg. 33 9.2.2.11.3)

- In reference to claim 22

In Figure 4.4 and 9.10, ETSI TS 125 322 teaches a data transfer controlling

method in a radio data transfer of a mobile communication system that includes

receiving a protocol data unit (PDU) from a transmitting RLC entity; transmitting window

size control (pg. 33 9.2.2.11.3) to the transmitting RLC entity and varying a transmitting

window size according to the window size control information by the transmitting RLC

entity and transmitting additional PDUs to be stored in a receiving buffer wherein

acknowledgement information (pg. 32 9.2.2.11.2) is transmitted simultaneously with the

window size control information, the acknowledgement information controlling

transmission of additional PDUs based on the varied transmitting window (pg. 15

4.2.1.3.1.; 4.2.1.3.2).

ETSI TS 125 322 does not teach transmitting window size control information

from a receiver to a transmitter by a state of a receiving buffer.

In Figure 1, Le et al. teaches transmitting window size control information from a

receiving host (18) to a sending host (10) based on a state of a receiving buffer. The

receiving host (18) instructs the sending host (10) to increase the window size when the

receiving buffer is near empty and instructs the sending host (10) to decrease the

window size when the receiving buffer is near full. (column 2 lines 23-41)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the data unit containing the acknowledgement information of

ETSI TS 125 322 to include transmitting window size control information from a receiver

to a transmitter by a state of a receiving buffer as suggested by Le et al. because it

allows the window size and data transmission rate to be varied in order to prevent buffer

overflow or under utilization of network resources.

- In reference to claim 32

The combination of ETSI TS 125 322 and Le et al. teaches a system and method that substantially covers all limitations of the parent claims. ETSI TS 125 322 further teaches the acknowledgement information is included in a first super-field (pg. 32 9.2.2.11.2 and the window size control information is included in a second super-field (pg. 33 9.2.2.11.3) within a status PDU from the receiver to the transmitter. (pg. 15 4.2.1.3.1.; 4.2.1.3.2)

- In reference to claim 33

The combination of ETSI TS 125 322 and Le et al. teaches a system and method that substantially covers all limitations of the parent claims. ETSI TS 125 322 further teaches the transmitting window size is varied to a size which allows previously received data stored in the receiving buffer to be arranged in sequence without said additional data from the transmitted being lost in the receiving buffer. (pg. 15 4.2.1.3.1.; 4.2.1.3.2)

- In reference to claim 34

The combination of ETSI TS 125 322 and Le et al. teaches a system and method that substantially covers all limitations of the parent claims. ETSI TS 125 322 further teaches adjusting a window size of the receiving buffer based on the window size control information. (pg. 36; 9.2.2.11.8)

- In reference to claim 35

The combination of ETSI TS 125 322 and Le et al. teaches a system and method that substantially covers all limitations of the parent claims. ETSI TS 125 322 further teaches the varied window size of the receiving buffer (pg. 36 9.2.211.8) can be adjusted to be equal to the transmitting window size (pg. 33 9.2.2.11.3; 9.4) varied based on the window size control information.

Response to Arguments

Applicant's arguments filed 10/11/2007 have been fully considered but they are not persuasive.

- In the Remarks on pg 11 of the amendment, the Applicant contends that the ETSI publication does not teach or suggest transmitting the acknowledgement signal and window size control information simultaneously from the transmitter to the receiver.

- The Examiner respectfully disagrees. In the ETSI publication, Figure 9.4 explicitly shows a STATUS PDU containing multiple super fields (pg. 25). As later explained in the ETSI publication, the super fields may include an ACK field (pg. 32 9.2.2.11.2) and a window size field (pg. 33 9.2.2.11.3). The STATUS PDU is then transmitted from a transmitter to a receiver.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR
12/19/2007

WING CHAN
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